



Partnering with The Vaccine Fund

Progress Report

to the
Global Alliance for Vaccines and Immunization (GAVI)
and
The Vaccine Fund
by the Government of

The Peoples' Republic of Bangladesh

Date of submission: 27 May 2004

Reporting period: January-December 2003

(Tick only one):

Inception report

First annual progress report

Second annual progress report.....✓

Third annual progress report

Fourth annual progress report

Fifth annual progress report

Text boxes supplied in this report are meant only to be used as guides. Please feel free to add text beyond the space provided.

**Unless otherwise specified, documents may be shared with the GAVI partners and collaborators*

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1. Report on progress made during the previous calendar year 2003

To be filled in by the country for each type of support received from GAVI/The Vaccine Fund.

1.1 Immunization Services Support (ISS)

1.1.1 Management of ISS Funds

Please describe the mechanism for management of ISS funds, including the role of the Inter-Agency Co-ordinating Committee (ICC).

Please report on any problems that have been encountered involving the use of those funds, such as delay in availability for programme use.

The funds received from GAVI/VF kept in Sonali Bank (Head Office), which is a national bank. The account is in foreign currency (US \$) current account. The name of the account is "Global Alliance for Vaccines and Immunization (GAVI)". As approved by the ICC the Joint Secretary (PH & WHO), MOH&FW and the Programme Manager (Child Health & LCC) at present the Director-PHC and Line Director-ESP, DGHS are the joint signatories of this account. The EPI HQ is responsible to prepare the request for fund for a specific activity, which is already been approved by the ICC. After receiving the advice the bank authority transfer the amount in local currency. Until now no major problems were faced to utilize the money except sometimes it takes time for encashment.

In the 14th meeting of the ICC the revised budget break up of GAVI/VF has been approved by the members. The meeting was held on 10 November 2003. Out of the planned activities the fund will mostly be used for DIMOs, for "Envelope Budget" for implementation of local level micro plan, support for different types of training, development of communication materials, transport for 1st line supervisors at Union level, travel allowance and DSA for managers at all level for supervision etc. The copy of the approved budget is attached herewith.

The ICC approved the plan for opening a separate bank account for every District and City Corporation in the name of GAVI. Officers of the concerned districts will be the Joint signatories of the bank account. The money for specific GAVI funded activities will be transferred to that account of the respective District and City Corporation from national level.

A. Qasem & Co. the private accounting firm (selected for development of the financial management system for managing GAVI/VF) finalized the manuals after receiving comments/suggestions from the ICC members as well as from the members of the Financial Management Sub Committee. The manuals will be approved in the next meeting of the ICC. The manuals are-

- a. Procurement manual
- b. Asset & Inventory Control manual
- c. Finance manual
- d. Administrative and Personnel manual

Currently for all types of expenditure the Government is following the existing GoB policy and guidelines. But after approval of those manuals all expenditures will be in accordance with the approved manuals. In that case the procedure for utilizing the fund will be smoother and the planned activities would take place in right time.

By this time the firm already started to work for installation of the accounting and inventory software – “Tally” and fixed asset control software – “Asset” at EPI HQ. For this two computers were provided. Relevant EPI HQ personnel will be trained. It is also planned to train the personnel from Hep-B areas on a pilot basis to see the feasibility. The software will be replicated to other areas once it is found effective.

1.1.2 Use of Immunization Services Support

In the past year, the following major areas of activities have been funded with the GAVI/Vaccine Fund contribution.

Funds received during the reporting year 2003: US \$ 1,782,990

Remaining funds (carry over) from the previous year 2002 : US \$ 1,776,911

Table 1: Use of funds during reported calendar year 2003

Area of Immunization Services Support	Total amount in US \$	Amount of funds			
		PUBLIC SECTOR			PRIVATE SECTOR & Other
		Central	Region/State/Province	District	
Vaccines	-	-	-	-	-
Injection supplies	-	-	-	-	-
Personnel	68,878	68,878	-	-	-
Transportation	719	162	-	557	-

Maintenance and overheads	233	233	-	-	-
Training	91,274	5,822	-	85,452	-
IEC / social mobilization	4,451	3,795	-	656	-
Outreach	-	-	-	-	-
Supervision	2,792	2,705	-	87	-
Monitoring and evaluation	11,103	1,399	-	9,704	-
Epidemiological surveillance	-	-	-	-	-
Vehicles	-	-	-	-	-
Cold chain equipment	-	-	-	-	-
Other: Different meeting	367	367	-	-	-
Mobile phone	9,839	1,357	-	8,482	-
Total:	189,656	84,718		104,938	
Remaining funds for next year:	3,370,245				

Although the utilization of ISS fund is less in 2003 but there are some activities in pipeline. The fund utilization will be around 70% if the GoB completes the above activities (procurement of vehicles, computers etc).

**If no information is available because of block grants, please indicate under 'other'.*

Please attach the minutes of the ICC meeting(s) when the allocation of funds was discussed.

Please report on major activities conducted to strengthen immunization, as well as, problems encountered in relation to your multi-year plan.

In consistence with the RED strategy EPI HQ organized District level Management and Micro Planning Workshop in all the 64 Districts. The Upazila Mangers were the participants of this workshop and were asked to bring all the record and report forms of a particular Union. Prior to the workshop different checklists and forms were sent to them to fill up with basic information of the Upazila, vaccination coverage of different antigen for the previous year, planned vs. session held, yearly requirement of vaccine and logistics etc. In the workshop several small groups were formed and were assigned to cross check the tally sheet, registration book and monthly reporting form for identifying the problems in record keeping and reporting system. Based on the identified problems each Upazila was then asked to prepare their micro plan to overcome those problems for strengthening the routine immunization activities.

EPI HQ has planned for EPI refresher training all over the country. Till 2003 training of trainers (TOT) was completed in 43 Districts and training for the supervisors and field workers were completed in 22 Districts. EPI HQ has a plan to complete the training of the remaining districts by September 2004.

Government of Bangladesh received the injection safety support, under which AD syringe will be used for all antigens from the year 2004. For this EPI HQ planned to train all field workers and supervisors on injection safety. This time EPI HQ planned to use the SMOs of WHO and GAVI supported DIMOs as the national trainers who will train the District and Upazila managers. These District and Upazila managers will in turn train the supervisors and field workers of their respective Upazila. To train the DIMOs and SMOs a one-day training curriculum was developed which also includes the AEFI. The GoB and WHO experts conducted the training of the DIMOs and SMOs.

Currently three types of training are taking place for the managers, supervisors and field workers; one is for routine EPI one for Hep-B and one for injection safety. The duration for TOT for these trainings are 4 days, 2 days and 1 day respectively. To make the training programs cost effective and also to reduce the time EPI HQ is planning to make a comprehensive training programs including all the above three topics.

After phasing out of IOCH project WHO was given the responsibility to provide technical assistance in the urban areas for disease surveillance specially AFP surveillance including strengthening routine EPI. For this, 58 field staffs have been recruited who previously worked for IOCH. As requested by the GoB, plan has been made to train these 58 EPI Facilitators on routine EPI, AFP surveillance, injection safety and Hepatitis-B. The EPI Facilitators will be posted at District level and it is assumed that the EPI facilitators would assist the GoB counterparts at District and Upazila level for implementing the local level activities for strengthening routine EPI as well as EPI disease surveillance including AEFI.

The District Immunization Medical Officers (DIMO) already posted in the low performing Districts. They are working with close collaboration of District and Upazila Health Officials, SMOs (WHO), UPCs (UNICEF) and other development partners. Their responsibility is to provide technical and financial support for strengthening routine EPI activities. The DIMOs assist the GoB for implementation of the instructions and guidelines send from National EPI to the field. Their main tasks are-

1. Supervise and monitor different training activities at the field including the facilitation
2. Monitor and support for the implementation of the recommendations from DQA
3. Provide technical assistance in compilation and analysis of data to find out the problems like as left out, dropout, regular holding of session and provide support to overcome the problems
4. Maintain regular contact with the EPI HQ personnel including Program Manager for regular update of implementation status

For ensuring regular holding of EPI sessions EPI HQ has sent a directive with guideline to all Upazila for preparing the annual session plan.

The Upazila managers prepared their annual session plan for 2004 and sent a copy to EPI HQ.

As decided by the ICC the fund for “Supervision” and “Envelop Budget” will be send to all Districts and City Corporations from April 2004. According to the supervision plan budgetary provision was kept from national level to Upazila level Managers and Supervisors. The technical sub committee will finalize the supervision checklist and is also planning for finalizing a guideline for effective utilization of the envelope budget.

The AEFI expert review committee has been formed with national experts from different sector in accordance with the WHO guideline and approved by the MOH&FW. The TOR has been developed and shared with the members for review. The members agreed that this committee would hold their meeting at least once in every quarter.

Future plan

- National EPI has a plan to organize 6 Divisional level interagency coordination workshops in early 2004. Besides the District Health managers the development partners (WHO, UNICEF and DIMOs) will attend the workshops. The objective of the workshop is to strengthen coordination among the partners for improving the vaccination coverage
- UNICEF is assisting the National EPI in preparing a coverage improvement plan for EPI
- National EPI has a plan to organize a total number of seventy-two 30-cluster surveys (one for each 64 Districts, 6 for each City Corporation, 1 for all other urban areas and 1 for Dhaka peri-urban areas) in 2004 with the financial and technical assistance from WHO
- In the DQA recommendation one major issue was to set a common denominator at all level. National EPI is planning to organize a workshop to finalize the denominator
- Bangladesh is planning to make a trial on the Data Quality Self Assessment (DQS) tool that has been developed by WHO. The SMOs, DIMOs, EPI Facilitators and as well as the concerned Government persons will be trained once it is found effective for strengthening the quality of data

1.1.3 Immunization Data Quality Audit (DQA) *(If it has been implemented in your country)*

*Has a plan of action to improve the reporting system based on the recommendations from the DQA been prepared?
If yes, please attach the plan.*

YES

✓

NO

If yes, please attach the plan and report on the degree of its implementation.

The first DQA in Bangladesh was undertaken from 30 October to 14 November 2002 by two external (expatriate) and two national auditors from EPI HQ. The team worked from national to union level to review the existing records and report forms and the system itself. The auditors divided into two groups and performed their assignment in 24 unions (Health Units) of 8 Upazilas under 4 Districts. The second DQA was done from 8-22 September 2003. The objective and the procedure were almost same as that of first DQA. The only major difference is that the audit team assessed the level of implementation of the recommendations of the DQA 2002. Although both the DQAs qualitatively confirms existing findings about the country's routine vaccination program but still there are areas for improvement even though some of the suggestion of DQA 2002 were already addressed. The major problem identified by the audit team has been considered for follow up action. A plan of action has been prepared and shared with all the ICC members. The POA has been finalized after incorporating all the comments from the members (attached).

The Program Manager, CH & LCC issued circulars to the field level to implement the recommendations, which could be implemented only through circulars. For ensuring the implementation of other recommendations he is monitoring the implementation plan according to the POA and coordinate with the partners for follow up.

Please attach the minutes of the ICC meeting where the plan of action for the DQA was discussed and endorsed by the ICC.

Please report on studies conducted regarding EPI issues during the last year (for example, coverage surveys).

A total of fourteen 30-cluster surveys were conducted in the year 2003. Out of which 6 were for 6 Divisions, 4 for 4 City corporations, 1 for all other urban areas, 1 for only slums of Dhaka City Corporation and 2 for Dhaka Peri-urban areas. From the CES it was found that the crude coverage was 95% for BCG and DPT-1, 83% for DPT-3 and 75% for Measles. The number of fully vaccinated children is 74%. The valid coverage with in one year of age for BCG was 95%, 72% for DPT-3 and 69% for Measles.

Mr. Soren Spanner from UNICEF visited Bangladesh to review the EPI cold store. In his trip report he made some recommendations for further strengthening of the cold chain system at national level. With the assistance from UNICEF, GoB is working to implement the recommendations and hence trying to improve the cold chain management system at national level. In his recommendation he suggested to make new construction for cold store keeping in mind a projected requirement for next 10-15 years. Government is trying to identify a suitable location for that as because there is no sufficient space existing at EPI HQ.

1.2 GAVI/Vaccine Fund New & Under-used Vaccines Support

1.2.1 Receipt of new and under-used vaccines during the previous calendar year

Start of vaccinations with the new and under-used vaccine: Hepatitis-B MONTH: April YEAR: 2003

Please report on receipt of vaccines provided by GAVI/VF, including problems encountered.

The number of total doses of Hep-B vaccine received by the Government of Bangladesh in 2002 is 2,682,000 in different shipments. Bangladesh did not receive any vaccine in 2003 considering the revised targets, wastage rate and the delay of vaccine introduction.

The main reasons for delayed introduction were-

1. The first approval for Bangladesh was DTP, Hep-B combo. Later on it was informed that globally there is a shortage of combo vaccine and Bangladesh requested to start with monovalent. This required time to make a consensus among GoB and the members of the ICC.
2. After taking the decision to introduce with monovalent it took time to select the areas on a limited scale.
3. The polio eradication activities especially the intensified national immunization days were in priority for Bangladesh.
4. There were some delays in finalizing the political leader to launch the vaccine.

Requirement for 2004

Sl. No.	Item	Requirement	Approved	Balance
1	Hepatitis-B vaccine	7,214,104	6,478,600	(735,504)
2	Number of AD syringes	5,306,423	5,441,500	135,077
3	Number of safety boxes	58,901	60,400	1,499

The requirement of Hepatitis-B vaccine for Bangladesh is more because the calculation was based on the number of session rather than the target children and the number of Hep-B vial will be needed at least one per session.

1.2.2 Major activities

Please outline major activities that have been or will be undertaken, in relation to, introduction, phasing-in, service strengthening, etc. and report on problems encountered.

Under the first phase, Hepatitis-B vaccine was introduced in 6 Districts from April 2003, one City Corporation from August 2003 and one District from November 2003. Advocacy meetings were also conducted at the district level as well as Upazila level before introduction.

To monitor the Hepatitis B vaccination program a monitoring checklist has been developed and used by the Medical Officers of EPI HQ, DIMO and WHO staff. In Hep-B areas there is a dual system regarding the use of injection equipment. For Hep-B vaccine AD syringes and for other vaccines sterilizable injection equipment are being used. So the vaccinators have to carry vaccine carrier, drum containing sterilized syringes and needles, record keeping and reporting books/forms and also the safety box to dispose the used AD syringes. Carrying these 4 items is really a burden for the vaccinators and so it was observed in a few places that the vaccinators were not taking the safety box at the session. This problem was taken care by supervision /monitoring visits and by motivation.

The data from Hep-B areas are quarterly reviewed and analysed to see the coverage, dropout and vaccine wastage rate. The average coverage for Hep-B3 is 89%, dropout 28% and vaccine wastage rate 38% as shown in the following graph for the 6 Districts.

To monitor proper utilization of Hep-B vaccine, it was instructed to the field to store the used Hep-B vaccine vials. A team was formed comprising representatives from Civil Surgeon's Office, local Upazila Manager, DIMO, SMO-WHO and UPC-UNICEF to monitor the proper utilization of Hep-B vaccine. The team visited each of the Upazila of the Hep-B districts and collected information of vaccine usage from the tally sheet in prescribed forms. The team also did physical counting of the vials present in the ILR and the used vials to check any disparity. In presence of the team the used vials were also crushed and buried. The information collected by the team is under process of analysis.

Based on the recommendation of the DQA the EPI record keeping and reporting forms have been changed and all the suggestions were incorporated in those forms. These forms are now being tested in the Hepatitis-B first phase areas. Before finalizing the forms for nation wide use EPI HQ planned to organize a workshop with the field workers, supervisors, managers of both health and family planning sectors and the development partners. The objective of the workshop is to get feed back from the users to make these forms user friendly and informative.

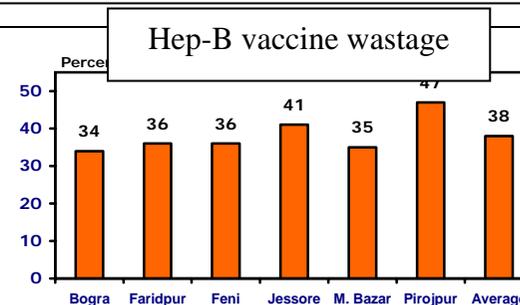
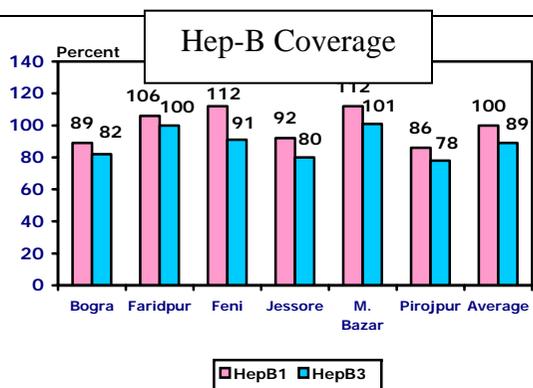
In 2004 Hep-B vaccine has been planned to introduce in 25 districts and 5 city corporations in two phases. In the 2nd quarter 3 city corporations and 12 districts (phase-II) and in 3rd quarter 2 city corporations and 13 districts (phase-III) will be covered under Hep-B vaccination program in 2004. Baseline information has already been collected from the above areas for clear understanding of cold chain

maintenance, cold chain logistics status, both cold and dry storage capacity, record keeping and reporting system through the assessment checklist.

The data is collected through the above checklist to know the status of a health facility to what extent they are ready to accept the introduction of a new vaccine and to identify the existing problems to take remedial action before Hep-B introduction. For example, it was found 2nd and 3rd phase areas that 2 district stores need extra ILR for storing Hep-B vaccine and 3 districts lack dry storage space for AD syringes and safety boxes. Also problems were identified in some areas regarding vaccine storage in the ILR. The main problems are no spaces between boxes of vaccines, DPT/TT were kept at the bottom of the ILR, dial thermometer was not placed in the right place etc. Corrective measures are taking place to address these problems.

Social mobilization

Bangladesh planned for introduction of Hepatitis-B vaccine in a phase manner. For why no national advocacy or social mobilization efforts were launched deliberately in order not to raise demands from neighbouring districts where the vaccine is not yet introduced. As a part of social mobilization currently the field workers are doing Interpersonal Communication (IPC) through house-to-house visit prior to the session day. The field workers are supposed to visit each and every household for registering newborn, reminder for next dose of vaccination, providing vitamin-A to the postpartum women etc. prior to the session day. During this visit they also promote the vaccination of Hepatitis-B. Besides this, the vaccinator also informs the mothers about Hep-B vaccination at the session. The National EPI is planning to prepare a communication package for routine EPI, which includes Hep-B and injection safety.



Cold Chain Equipment Inventory

Equipment	Level					
	City Corporation	Zone	District	Municipality	Upazila	Total
ILR						
Total	5	23	261	17	339	645
Working	5	22	176	15	256	474
Out of order	0	1	85	2	83	171
Chest Freezer						
Total	0	0	40	1	83	124
Working	0	0	25	1	45	71
Out of order	0	0	15	0	38	53
Deep Freezer						
Total	4	22	198	17	341	582
Working	4	19	129	16	287	455
Out of order	0	3	69	1	54	127
Cold Box						
Total	8	59	350	25	1031	1473
Working	8	54	301	23	852	1238
Out of order	0	5	49	2	179	235
Dial Thermometer						
Total	37	232	1241	87	2519	4120
Working	32	212	1039	65	2029	3377
Out of order	5	24	202	22	490	743
Vaccine Carrier (small)						
Total	1366	2111	798	385	37749	42409
Working	1329	1540	566	322	34543	38300
Out of order	37	571	232	63	3206	4109

Vaccine Carrier (medium)						
Total	745	1130	1224	505	8289	11893
Working	733	1051	1209	499	7612	11104
Out of order	12	79	15	6	677	789
Vaccine Carrier (large)						
Total	245	411	2119	203	8554	11532
Working	171	290	1585	191	6350	8587
Out of order	74	121	534	12	2204	2945

1.2.3 Use of GAVI/The Vaccine Fund financial support (US\$100,000) for the introduction of the new vaccine

Please report on the proportion of 100,000 US\$ used, activities undertaken, and problems encountered such as delay in availability of funds for programme use.

Government of Bangladesh received this amount in November 2002. This fund has already been used for training of Hepatitis-B and also for development of materials related to training and advocacy meeting at different level. Expenditure related to collection of baseline information prior to Hepatitis-B introduction was also covered from this fund. To complete these activities in all over the country for Hep-B introduction total 0.5 million US \$ will be required and remaining 0.4 million will be covered from ISS account.

1.3 Injection Safety

1.3.1 Receipt of injection safety support

Please report on receipt of injection safety support provided by GAVI/VF, including problems encountered

Bangladesh already received the AD syringe, reconstitution syringe and safety boxes for the year 2004 under injection safety support. There is inconsistency between the approved number and the requirement as follows-

Sl. No.	Item	Requirement	Approved	Balance
1	Number of AD syringe for BCG	5,490,025	5,490,100	75
2	Number of AD syringe for other vaccines	31,335,842	29,287,200	(2,048,642)
3	Number of reconstitution syringes for BCG	1,793,991	549,100	(1,244,891)
4	Number of reconstitution syringes for Measles	1,793,991	718,800	(1,075,191)
5	Number of safety boxes	448,594	400,100	(48,494)

Why the requirement is more for:

A. AD syringe for other antigen

For calculating AD syringe for TT vaccines the total pregnant women has been considered instead of total live births as the target. Because outcome of all pregnancies is not live birth, some of the pregnancies may be terminated as abortion or stillbirth. In calculating AD syringes for DPT the number of surviving neonates were considered instead of surviving infants as the target. In Bangladesh according to EPI schedule vaccination starts at the age of 6 weeks. If surviving infants are considered as target then there will be shortage of vaccine/logistics if the infants die after receiving vaccine in the scheduled time period. For this reason the numbers of surviving neonates were considered for calculating the vaccine and logistics.

B. Reconstitution syringe and safety box

Since the intensification of routine immunization in the year 1989 the operational strategy remains same. In the strategy there are 8 outreach centres in each rural ward, which operates vaccination session once in a month. Each outreach centre has a catchment population of around 1000. In Bangladesh there are 13,500 rural and around 527 urban wards. Based on this, the total number of monthly session is around 134,684 of which 115,576 is outreach and 19,108 is fixed sessions. For the reconstitution syringe the number of sessions have been considered instead of number of doses and the reconstitution syringe will be needed at least one for BCG and one for Measles per session. For example, 3 reconstitution syringes will be required for 3 vials to vaccinate 20 children. But if the children come in four sessions then the number of required reconstitution syringe will be at least 4. The required number of safety boxes also changed due to increase in number of AD syringe and reconstitution syringe.

1.3.2 Progress of transition plan for safe injections and safe management of sharps waste.

Please report on the progress based on the indicators chosen by your country in the proposal for GAVI/NF support.

Activity under injection safety support is planned to start from 2004.

Indicators	Targets	Achievements	Constraints	Updated targets

1.3.3 Statement on use of GAVI/The Vaccine Fund injection safety support (if received in the form of a cash contribution)

The following major areas of activities have been funded (specify the amount) with the GAVI/The Vaccine Fund injection safety support in the past year:

The Government of Bangladesh received the injection safety support in the form of kind. The support is equivalent to US \$ 2,910,000 for 2004

2. Financial sustainability

- Inception Report: Outline timetable and major steps taken towards improving financial sustainability and the development of a financial sustainability plan.
- First Annual Progress Report: Submit completed financial sustainability plan by given deadline and describe assistance that will be needed for financial sustainability planning.

Parts of the agreement between GoB and the GAVI/VF the Government of Bangladesh is suppose to prepare and submit a Financial Sustainability Plan (FSP) for Immunization during the first year of the award. The objective of this FSP is to project the long term expected costs for immunizing the children so that steps can be taken in advance to ensure that funding is in place. To accomplish the activity a local consultant has been hired to coordinate the activities. Beside the local consultant two WHO experts, one from Geneva and the other from SEARO visited Bangladesh on 11 October 2003 to provide technical support and to assist the local consultant in the development of the FSP. The final draft of the FSP is then submitted to GAVI secretariat on 24 November 2003 after reviewing and incorporating the feed back from the ICC members. The member of the ICC came to a consensus for organizing a workshop in December 2003 to get the commitment from the development partners. The date was scheduled on 16 February but due to some unavoidable circumstances the date was rescheduled on 16 March. In that workshop a working committee has been formed to work on the plan. The committee is still working on the FSP and will submit once it is finalized.

Second Annual Progress Report : Describe indicators selected for monitoring financial sustainability plans and include baseline and current values for each indicator. In the following table 2, specify the annual proportion of five year of GAVI/VF support for new vaccines that is planned to be spread-out to ten years and co-funded with other sources.

Table 2: Sources (planned) of financing of new vaccine (Hepatitis-B)

Proportion of vaccines supported by	Annual proportion of vaccines									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Proportion funded by GAVI/VF (%)	100%	100%	100%	100%	100%	92%	50%	-	-	-
Proportion funded by the Government and other sources (%)	-	-	-	-	-	8%	50%	100%	100%	100%
Total funding for Hepatitis-B *	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

* Percentage of DTP3 coverage (or measles coverage in case of Yellow Fever) that is target for vaccination with a new and under-used vaccine

Subsequent reports: Summarize progress made against the financing strategy, actions and indicators section of the FSP; include successes, difficulties and responses to challenges encountered in achieving outlined strategies and actions. Report current values for indicators selected to monitor progress towards financial sustainability. Include funds received to date versus those expected for last year and the current year and actions taken in response to any difficulties. Update the estimates on program costs and financing with a focus on the last year, the current year and the next 3 years. For the last year and current year, update the estimates of expected funding provided in the FSP tables with actual funds

received since. For the next 3 years, update any changes in the costing and financing projections. The updates should be reported using the same standardized tables and tools used for the development of the FSP (latest versions available on <http://www.gavinfo.org> under FSP guidelines and annexes. Highlight assistance needed from partners at local, regional and/or global level.

3. Request for new and under-used vaccines for year 2005

Section 3 is related to the request for new and under used vaccines and injection safety for the forthcoming year.

3.1. Up-dated immunization targets

Confirm/update basic data approved with country application: figures are expected to be consistent with those reported in the WHO/UNICEF Joint Reporting Forms. Any changes and/or discrepancies MUST be justified in the space provided (page 12). Targets for future years MUST be provided.

Table 3: Update of immunization achievements and annual targets

Number of	Achievements and targets								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
DENOMINATORS									
Births	3,846,341	3,903,266	3,961,034	4,019,658	4,079,149	4,139,520	4,200,785	4,262,957	4,326,048
Infants' deaths	255,012	258,787	262,617	266,503	270,448	274,450	278,512	282,634	286,817
Surviving infants	3,591,328	3,644,480	3,698,418	3,753,154	3,808,701	3,865,070	3,922,273	3,980,323	4,039,231
Infants vaccinated / to be vaccinated with 1 st dose of DTP (DTP1)*	3,514,999	3,267,406	3,289,442	3,504,211	3,907,824	3,965,660	4,024,352	4,083,912	3,739,329
Infants vaccinated / to be vaccinated with 3 rd dose of DTP (DTP3)*	2,884,772	3,097,460	3,263,819	3,473,908	3,321,651	3,569,094	3,621,917	3,675,521	3,729,919

NEW VACCINES **									
Infants vaccinated / to be vaccinated with 1 st dose of (Hepatitis-B vaccine)	-	-	-	233,590	1,273,788	3,370,045	4,024,352	4,083,912	3,739,329
Infants vaccinated / to be vaccinated with 3 rd dose of (Hepatitis-B vaccine)	-	-	-	171,676	1,273,788	3,370,045	3,621,917	3,675,521	3,729,919
Wastage rate of *** (Hepatitis-B vaccine)	-	-	-	38%	30%	25%	25%	25%	25%
INJECTION SAFETY****									
Pregnant women vaccinated / to be vaccinated with TT	N/A	N/A	N/A	9,408,392	4,691,021	4,760,448	4,830,903	4,902,400	4,974,956
Infants vaccinated / to be vaccinated with BCG	2,973,202	3,237,582	3,319,837	3,559,379	3,956,774	4,056,730	4,158,777	4,220,327	4,282,788
Infants vaccinated / to be vaccinated with Measles	2,798,093	3,017,447	3,200,571	3,411,801	3,237,396	3,478,563	3,530,046	3,582,290	3,635,308
Neonatal Death	-	163,937	166,363	168,826	171,324	173,860	176,433	179,044	163,937
Surviving Neonates	-	3,739,329	3,794,671	3,850,832	3,907,824	3,965,660	4,024,352	4,083,912	3,739,329

* Indicate actual number of children vaccinated in past years and updated targets (with either DTP alone or combined)

** Use 3 rows for every new vaccine introduced

*** Indicate actual wastage rate obtained in past years

**** Insert any row as necessary

1. *In Bangladesh according to the routine immunization schedule vaccination with DPT, Hep-B and OPV starts at the age of 6 weeks. Therefore the surviving neonates were considered as denominator for determining the target children instead of surviving infants except Measles vaccine. In case of BCG total number of Births were considered as denominator.*
2. *The current EPI report form includes all CBA women- separate TT for pregnant women is not available from the existing report*

Please provide justification on changes to baseline, targets, wastage rate, vaccine presentation, etc. from the previously approved plan, and on reported figures, which differ from those reported in the WHO/UNICEF Joint Reporting Form in the space, provided below.

Change of target for Hep-B vaccination in 2004

Earlier Bangladesh planned to expand the Hepatitis-B vaccination in 2004 for 50% of the country at a time. But later on it was decided in the ICC that it would be better to expand in a phased manner. According to the new plan Hep-B vaccine will be introduced in additional 3 City Corporations and 12 districts in 2nd quarter and 2 City Corporations and 13 districts in 3rd quarter of 2004. For that reason the target children came down from 1.95 million to 1.27 million in 2004.

3.2 Confirmed/Revised request for new vaccine (to be shared with UNICEF Supply Division) **for the year 2005** (indicate forthcoming year)

Please indicate that UNICEF Supply Division has assured the availability of the new quantity of supply according to new changes.

Usually the revised requirement finalised at the time of preparation of the progress report and it is not sure weather UNICEF could supply without the approval from the GAVI secretariat through reviewing the progress report. From the first annual progress report it was experienced that UNICEF supplied as per the approval from the GAVI secretariat rather than the actual requirement of Bangladesh. In the first annual progress report Bangladesh requested for 3,587,982 number of reconstitution syringe based on number of sessions but the approval was based on number of children which UNICEF supply division usually follows and that was 1,267,900. Similarly Bangladesh calculated the requirement of Hepatitis-B vaccine, which was 7,214,104 doses, but the approval was 6,478,600 doses.

As a member of the ICC UNICEF will get one copy of the annual progress report with a request to follow up the supply.

Table 4: Estimated number of doses of Hepatitis-B vaccine

		Formula	For year 2005
A	Infants vaccinated / to be vaccinated with 1 st dose of Hepatitis-B		*3,370,045
B	Percentage of vaccines requested from The Vaccine Fund taking into consideration the Financial Sustainability Plan	%	100
C	Number of doses per child		3
D	Number of doses	$A \times B / 100 \times C$	10,110,135
E	Estimated wastage factor	(See list in table 3)	1.33
F	Number of doses (incl. wastage)	$A \times C \times E \times B / 100$	13,446,479
G	Vaccines buffer stock	$F \times 0.25$	3,361,620
H	Anticipated vaccines in stock at start of year (2004)		1,773,083
I	Total vaccine doses requested Based on number of session	$F + G - H$	15,035,016 16,482,962
J	Number of doses per vial		10
K	Number of AD syringes (+ 10% wastage) + 25% Buffer	$(D + G - H) \times 1.11$	12,985,525 + 3,246,381 = 16,231,906
L	Reconstitution syringes (+ 10% wastage)	$I / J \times 1.11$	-
M	Total of safety boxes (+ 10% of extra need)	$(K + L) / 100 \times 1.11$	144,139

Table 5: Wastage rates and factors

Remarks

- **Phasing:** Please adjust estimates of target number of children to receive new vaccines, if a phased introduction is intended. If targets for hep B3 and Hib3 differ from DTP3, explanation of the difference should be provided
- **Wastage of vaccines:** Countries are expected to plan for a maximum of 50 % wastage rate for a lyophilized vaccine in 10 or 20-dose vial; 25% for a liquid vaccine in a 10 or 20-dose vial; 10% for any vaccine (either liquid or lyophilized) in 1 or 2-dose vial.
- **Buffer stock:** The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero under other years. In case of a phased introduction with the buffer stock spread over several years, the formula should read: [F – number of doses (incl. wastage) received in previous year] * 0.25.
- **Anticipated vaccines in stock at start of year... ..:** It is calculated by deducting the buffer stock received in previous years from the current balance of vaccines in stock.
- **AD syringes:** A wastage factor of 1.11 is applied to the total number of vaccine doses requested from the Fund, excluding the wastage of vaccines.
- **Reconstitution syringes:** it applies only for lyophilized vaccines. Write zero for other vaccines.
- **Safety boxes:** A multiplying factor of 1.11 is applied to safety boxes to cater for areas where one box will be used for less than 100 syringes

Vaccine wastage rate	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%
Equivalent wastage factor	1.05	1.11	1.18	1.25	1.33	1.43	1.54	1.67	1.82	2.00	2.22	2.50

**Please report the same figure as in table 3.*

3.4 Confirmed/revised request for injection safety support for the year 2005

Table 5: Estimated supplies for safety of vaccination for the next two years with BCG

		Formula	For year 2005	For year 2006
A	Target of children for BCG	#	4,056,730	4,158,777
B	Number of doses per child	#	1	1
C	Number of BCG doses	A x B	4,056,730	4,158,777
D	AD syringes (+10% wastage)	C x 1.11	4,502,970	4,616,242
E	AD syringes buffer stock ¹	D x 0.25	-	-
F	Total AD syringes	D + E	4,502,970	4,616,242
G	Number of doses per vial	#	20	20
H	Vaccine wastage factor ⁴	<i>Either 2 or 1.6</i>	2	2
I	Number of reconstitution ² syringes (+10% wastage)	$C \times H \times 1.11 / G$	1,793,991	1,793,991
J	Number of safety boxes (+10% of extra need)	$(F + I) \times 1.11 / 100$	69,896	71,154

¹ The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

² Only for lyophilized vaccines. Write zero for other vaccines

⁴ Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

Table 6: Estimated supplies for safety of vaccination for the next two years with DTP

		Formula	For year 2005	For year 2006
A	Target of children for DTP	#	3,569,094	3,621,917
B	Number of doses per child	#	3	3
C	Number of DTP doses	A x B	10,707,282	10,865,751
D	AD syringes (+10% wastage)	C x 1.11	11,885,083	12,060,983
E	AD syringes buffer stock ³	D x 0.25	-	-
F	Total AD syringes	D + E	11,885,083	12,060,983
G	Number of doses per vial	#	10	10
H	Vaccine wastage factor ⁴	<i>Either 2 or 1.6</i>	-	-
I	Number of reconstitution ⁴ syringes (+10% wastage)	$C \times H \times 1.11 / G$	-	-
J	Number of safety boxes (+10% of extra need)	$(F + I) \times 1.11 / 100$	131,924	133,877

³ The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

⁴ Only for lyophilized vaccines. Write zero for other vaccines

⁴ Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

Table 7: Estimated supplies for safety of vaccination for the next two years with Measles

		Formula	For year 2005	For year 2006
A	Target of children for Measles	#	3,478,563	3,530,046
B	Number of doses per child	#	1	1
C	Number of Measles doses	A x B	3,478,563	3,530,046
D	AD syringes (+10% wastage)	C x 1.11	3,861,205	3,918,351
E	AD syringes buffer stock ⁵	D x 0.25	-	-
F	Total AD syringes	D + E	3,861,205	3,918,351
G	Number of doses per vial	#	10	10
H	Vaccine wastage factor ⁴	<i>Either 2 or 1.6</i>	1.67	1.67
I	Number of reconstitution ⁶ syringes (+10% wastage)	$C \times H \times 1.11 / G$	1,793,991	1,793,991
J	Number of safety boxes (+10% of extra need)	$(F + I) \times 1.11 / 100$	62,773	63,407

⁵ The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

⁶ Only for lyophilized vaccines. Write zero for other vaccines

⁴ Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

Table 8: Estimated supplies for safety of vaccination for the next two years with TT

		Formula	For year 2005	For year 2006
A	Target of pregnant women⁷	#	4,760,449	4,830,903
B	Number of doses per women	#	2	2
C	Number of TT doses	A x B	9,520,898	9,661,806
D	AD syringes (+10% wastage)	C x 1.11	10,568,197	10,724,604
E	AD syringes buffer stock⁸	D x 0.25	0	0
F	Total AD syringes	D + E	10,568,197	10,724,604
G	Number of doses per vial	#	10	10
H	Vaccine wastage factor⁴	<i>Either 2 or 1.6</i>	-	-
I	Number of reconstitution⁹ syringes (+10% wastage)	$C \times H \times 1.11 / G$	-	-
J	Number of safety boxes (+10% of extra need)	$(F + I) \times 1.11 / 100$	117,307	119,043

The coverage was considered 90% for DTP and Measles for the year 2005 and 2006 and for BCG 98% in 2005 and 99% in 2006

*In Bangladesh according to the routine immunization schedule vaccination with DPT, Hep-B and OPV starts at the age of 6 weeks. Therefore the surviving neonates were considered as denominator for determining the target children instead of surviving infants except Measles vaccine
If quantity of current request differs from the GAVI letter of approval, please present the justification for that difference.*

Requirement of AD syringes and reconstitution syringes and safety boxes is more than the quantity approved by GAVI for 2004.

Why more AD syringes is needed

For TT vaccines the total pregnant women has been taken as the target instead of total live births. This is done because outcome of all pregnancy is not live birth as some of the pregnancies may terminate as abortion and stillbirth. In Bangladesh according to the routine immunization schedule vaccination with DPT, Hep-B and OPV starts at the age of 6 weeks. Therefore the surviving neonates were considered as denominator for determining the target children instead of surviving infants for DPT.

⁷ GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).

⁸ The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

⁹ Only for lyophilized vaccines. Write zero for other vaccines

⁴ Standard wastage factors will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

Why more reconstitution syringe is needed

Expanded Program on Immunization launched in Bangladesh in the year 1975 on the eve of World Health Day. At the beginning of EPI vaccination was confined among the major hospitals and clinics. From the result of the CES it was revealed that the existing operational strategy was not adequate to achieve the immunization goal. For why intensification was planned in the year 1985 and full intensification was completed by 1989. In the intensified strategy one outreach session was planned for around 1000 population. In Bangladesh the lowest administrative unit is a ward, which has a population of around 8,000 to 10,000. Based on the population each and every rural ward has been divided into 8 sub blocks and each sub block has an outreach session, which operates once in a month. In Bangladesh the total number of rural ward is 13,500 and based on the above operational strategy the total number of outreach site in rural areas are $13,500 \times 8 = 108,000$. Besides the outreach sessions, fixed sessions are also held in all the Upazila Health Complexes (fixed site), which operates for 2 to 6 days vaccination per week.

In the urban settings there is no common operational strategy like as rural areas. The Districts hospitals, Medical College Hospitals and other specialized hospitals are located in the urban areas and these fixed sites conduct EPI session almost everyday. Besides that, based on program need outreach sessions are also planned for the urban areas which also operates 1-4 sessions per month. Based on these above calculation the total number of sessions per month is around 134,684 and the break-up is as the following table.

Considering this, operational strategy at least two reconstitution syringes (one for BCG and one for Measles) will be required per session what ever may be the number of children to be vaccinated and the calculation for the reconstitution syringe were made based on number of sessions rather than the number of children. For example, in a ward 4 vials of Measles will be required to vaccinate 30 children and for this 4 reconstitution syringe will be required. But if these 30 children were provided vaccination from 8 different sites then 8 vials of Measles will be required and accordingly 8-reconstitution syringe will also be needed.

As AD syringe and reconstitution syringe requirement is more the number of safety box requirement is also more.

Type of session	Rural	Urban
Fixed Session	11,380	7,728
Outreach Session	108,000	7,576
Total Session per month	119,380	15,304
Grand Total (per month)		134,684

4. Please report on progress since submission of the last Progress Report based on the indicators selected by your country in the proposal for GAVI/VF support

Indicators	Targets	Achievements	Constraints	Updated targets
1. Introduction of Hepatitis-B vaccine in routine EPI	All over the country by 2005	Introduction completed in phase-1 areas. Plan to cover 50% of the country in 2004		
2. EPI refresher training for all managers, field staffs and supervisors completed	All managers, supervisors and field workers will be trained on EPI refresher training by 2003	TOT completed in 43 districts and training for managers, supervisors and field workers were completed in 21 Districts	Preparation for 12 th NID in last part of 2003. Insufficient National trainer for conducting TOT	Will be completed by September 2004
3. Upazila have planned activities for strengthening routine EPI	Management and Micro planning workshop at all Districts based on RED strategy	Completed in all the 64 Districts		
4. Development of financial management	By the year 2003	Four manuals were finalized and pending for	Delayed feed back from the members	May 2004

system for GAVI/VF		ICC approval		
5. Focal persons trained on cold chain and logistics management	By the year 2003	Draft training manual developed	Training manual yet to be finalized. Lack of trainers.	2004
6. Technical assistance for District level	In 25 low performing Districts	DIMOs were trained and posted in their place (District).		
7. National policy on Injection Safety	June 2003	National policy finalized and already send to the cabinet for approval	Needs cabinet approval	June 2004
8. DQA recommendations were incorporated to improve the quality and reliability of data	By 2004	Some of the recommendations were implemented. Revised forms field-tested. POA finalized		July 2004

5. Checklist

Checklist of completed form:

Form Requirement:	Completed	Comments
Date of submission	27.05.2004	
Reporting Period (consistent with previous calendar year)	Jan-Dec 2003	
Table 1 filled-in	09.05.04	
DQA reported on		
Reported on use of 100,000 US\$		
Injection Safety Reported on		
FSP Reported on (progress against country FSP indicators)		
Table 2 filled-in		
New Vaccine Request completed	12.05.04	
Revised request for injection safety completed (where applicable)		
ICC minutes attached to the report		
Government signatures		
ICC endorsed		

6. Comments

→ *ICC/RWG comments:*

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7. Signatures

For the Government of the People's Republic of Bangladesh

Signature:.....

Name: Md. Lutfor Rahman Chowdhury

Title: Secretary In-charge, Ministry of Health and Family Welfare

Date: 27 May 2004

We, the undersigned members of the Inter-Agency Co-ordinating Committee endorse this report. Signature of endorsement of this document does not imply any financial (or legal) commitment on the part of the partner agency or individual.

Financial accountability forms an integral part of GAVI/The Vaccine Fund monitoring of reporting of country performance. It is based on the regular government audit requirements as detailed in the Banking form. The ICC Members confirm that the funds received have been audited and accounted for according to standard government or partner requirements.

Agency/Organisation	Name/Title	Signature	Date	Agency/Organisation	Name/Title	Signature	Date
Ministry of Finance	Mohammad Abdul Mazid, Joint Secretary			World Bank	Mr. Rafael Cortez Head, HPSO		
Ministry of Local Government & Rural Development	Md. Mokhlesur Rahman, Joint Secretary, Local Government Division			Rotary International	Mr. Iftekharul Alam, Chairman, Polio Plus		
BRAC	Mr. Aminul Alam, Deputy Executive Director			UNICEF	Mr. Koyode Oyegbite, Chief, Health & Nutrition Section		
DFID	Dr. Neil Squires, Senior Advisor			USAID	Mr. Charles Llewellyn, Team Leader, PHN		
Government of Japan	Mr. Massahiko Kiya Counsellor, Embassy of Japan			World Health Organization	Dr. Suniti Acharya, WHO Representative		